

What is claimed is:

1. A sheet material for a radio wave absorber comprising a paperboard structure in which corrugated mediums and a planar liner are layered over each other, wherein the corrugated medium and/or the liner are constructed from a sheet including an electrical-loss material.

2. The sheet material for a radio wave absorber of claim 1, wherein the electrical-loss material is an electroconductive fiber.

3. The sheet material for a radio wave absorber of claim 2, wherein the sheet is mixed paper including the electroconductive fiber.

4. The sheet material for a radio wave absorber of claim 3, wherein a ratio ( $y/p$ ) of maximum electric conductivity ( $p$ ) of the mixed paper and electric conductivity ( $y$ ) measured in a direction orthogonal to a measurement direction presenting the maximum electric conductivity ( $p$ ) is in a range of 0.35 to 0.95.

5. The sheet material for a radio wave absorber of any of claims 1 to 4, wherein the paperboard structure is one selected from single faced paperboard, double faced paperboard, double wall paperboard and triple wall.

6. The sheet material for a radio wave absorber of any of claims 1 to 5, wherein thickness per a layer of the paperboard structure is 1 to 5 mm.

7. The sheet material for a radio wave absorber of any of claims 1 to 6, wherein the take up ratio of the corrugated medium to the liner of the paperboard structure is in a range of 1.2 to 2 times, and the interval between tops of adjacent corrugated mediums is in a range of 1 to 15 mm.

8. The sheet material for a radio wave absorber of any of claims 3 to 7, wherein the electroconductive fiber is a carbon fiber, an average fiber length of the carbon fiber is 1 to 60 mm and a mixing ratio in the mixed paper is

0.08 to 20 wt %.

9. The sheet material for a radio wave absorber of claim 8, wherein a content of sizing agent adhered to the carbon fiber is not more than 0.9 wt % of total carbon fiber weight.

10. The sheet material for a radio wave absorber of any of claims 1 to 9, wherein at least one selected from printing of colors, patterns or letters, or, embossing of patterns or letters is applied to an outside surface of the liner.

11. A radio wave absorber, wherein the sheet material for a radio wave absorber of any of claims 1 to 10 is cut, folded, and assembled into a hollow three-dimensional structure body, which has a shape of wedge, polygonal pyramid, or polygonal cylinder.

12. A radio wave absorber, wherein, inside of the hollow three-dimensional structure body of claim 11, one or more of the sheet material for a radio wave absorber of any of claims 1 to 10 is arranged parallel to a bottom surface of the radio wave absorber.

13. A radio wave absorber of which the hollow three-dimensional structure body of claim 11 has a pyramidal form, wherein the sheet material for a radio wave absorber of any of claims 1 to 10 is formed into an isosceles triangle plate two sides of which are along an inner wall of the radio wave absorber to match with each other at a right angle, and the other side of which is arranged perpendicularly to the bottom surface of the radio wave absorber.

14. A radio wave absorber of which the hollow three-dimensional structure body of claim 11 has a wedge form, wherein, inside of the radio wave absorber, the sheet material for a radio wave absorber of any of claims 1 to 10 is formed into an isosceles triangle plate two sides of which are along an inner wall of the radio wave absorber to arrange one or more plates

perpendicularly to a ridge line of wedge.

15. The radio wave absorber of claim 11, wherein the sheet material for a radio wave absorber of any of claims 1 to 10 has paired insert slits and insert flaps, and the hollow three-dimensional structure body is assembled by inserting the insert flap into the insert slits not to deform the shape.

16. The radio wave absorber of any of claims 11 to 14, wherein the hollow three-dimensional structure body is erected on a sintered ferrite plate.

17. The radio wave absorber of any of claims 11 to 14, wherein the hollow three-dimensional structure body is erected on a pedestal where the sheet material for a radio wave absorber of any of claims 1 to 10 is layered over in one or more layers.

18. The radio wave absorber of any of claims 11 to 14, wherein the pedestal is formed by layering on a reflective flat plate one or more sheet material layers for the radio wave absorber of any of claims 1 to 10 where at least the corrugated medium is formed from a sheet including the electrical-loss material, and the hollow three-dimensional structure body is erected on the pedestal.

19. The radio wave absorber of claim 17 or 18, wherein two or more layers of the sheet material for a radio wave absorber are layered over so that a corrugated row direction of the corrugated medium crosses each other among the layers.